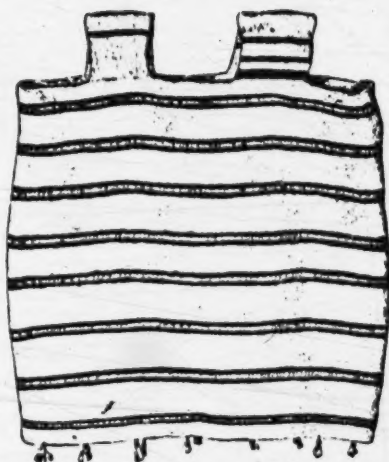


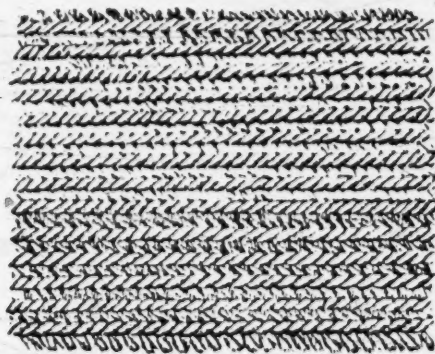
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Fig. 36. Mail shirt, knitted of caraguata string. Worn principally as a protection against arrows. Choroti. Gran Chaco, Bolivia: *Vs. Riksm. 03. 3. 382.*

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Fig. 37. Enlarged detail of mail shirt, fig. 36. Natural size.

worn loosely hanging down (fig. 53). Frequently the hair is tied into a brush-like bunch at the nape of the neck (fig. 39). Woollen frontlets are generally furnished with simple, tasteful, ornamentation (figs. 30

It is worthy of note that the Choroti also manufacture another protective garment out of caraguata, namely a sort of stockings. This footgear is put on for wading (in fishing), as a protection against the teeth of the terribly sharp-biting palometa fish.¹

To protect the legs from spiny plants, I have seen Choroti using a kind of long deerskin leggings, laced on with leather straps. The legging here reproduced in fig. 38, which has a height of 71 cm, reached well above the knee of its wearer. Some of the Choroti make use of sandals,² but I have myself never seen them worn by these Indians.

The men generally wear their hair of a medium length i. e., down to the shoulders, or the shoulder blades (figs. 16--18, 39 and 83) — but I have also seen Choroti with hair so long as almost to reach the waist. The hair is usually tied round with a woollen frontlet (fig. 39), or a frontlet of palm leaves (fig. 24), or birdskin (fig. 17), but it may also be

¹ Nordenskiöld (13), p. 110.

² Nordenskiöld (11), pp. 113, 114.

727 and this miniature pyre was set alight. The flames only rising upwards, the fire and the glowing cinders would only very slowly burn through the skin and into the stomach. It is difficult to imagine a more cruel method of torture.

721 Many of the wars waged between so-called civilized nations have owed their origin to greed of the wealth that nature produces, and among the Indians, wars may be due to the same cause. In the case of primitive

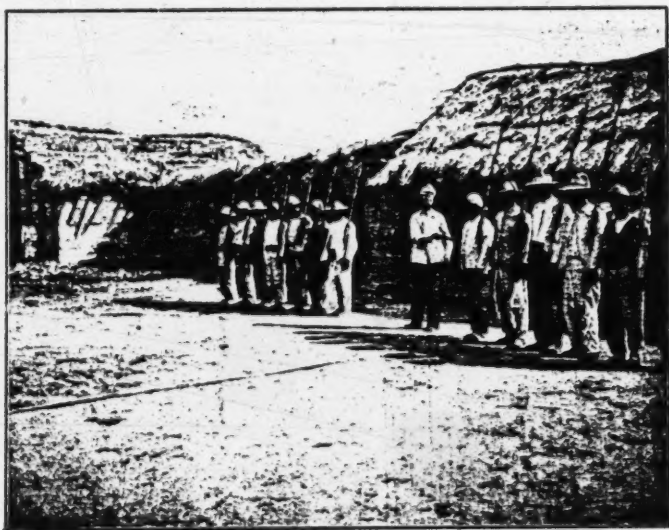


Fig. 112. Fort Crevaux. Gran Chaco. Bolivia. Photo. E. v. R.

peoples, wars are perhaps mostly a competitive struggle for food, and we may take it for granted that the fights that have taken place between the tribes on the Pilcomayo have been over the fishing in that river, so very important a matter to the Indians. It is partly for this reason, and partly because war is a hunting of human beings, that I have dealt with the war methods, and the war weapons, of the Choroti in this chapter on their means of subsistence.

- 226 Owing to the circumstance that the part of the Choroti tribe among which I was carrying on my studies, at the time of my stay with them,

had their dwellings far from any fishing water, I myself never saw ²²⁶ these Indians engaging in fishing. As they had, however, brought with them their fishing gear (except the frameworks of their landing-nets), I succeeded in making a good collection of this kind of implement.

The Choroti fish with nets (using them as landing-nets), fish-hooks, and with bow and arrow. The last-mentioned fishing method, which, as far as I know, has only been observed by Moberg a Swede, is, however, only used during the latter part of the rainy season.¹

The nets are either fastened so as to fill up the angle between two rigid poles, which are tied together by their lower ends (fig. 113), or between two supple rods, tied together at both ends (fig. 114). The angle-set poles, and the rods, seem as a rule to be about 3 m in length. These fork poles and rods (dip-net frames) the Choroti had not troubled to bring with them to their dwelling site — far removed from any fishing water — in the neighbourhood of Tatarenda, and therefore my description of these implements is founded on two specimens preserved in the Gothenburg Museum, and on such photographs² and information as Nordenskiöld has kindly given me.³

When fishing, the Indians often split up into two parties, one of whom make a bar across the river with the nets that are stretched between poles (the barring-nets), which are then held so that the points of the fork rest on the bottom of the river. The other party of fishermen drives the fish towards the barring-nets, at the same time using their nets that are fixed between two rods (dip-nets) for catching fish.⁴ These latter nets are used like large landing-nets, and, by means of the flexible rods, can be opened and closed. The Choroti have no water craft of any kind (not ⁵⁰¹ even rafts), but do their fishing swimming or wading. When fish is scarce, ⁴⁸¹ the Choroti block up the Pilcomayo with pole-built fences that, here and there, have openings in them. In front of these, the Indians sit on small platforms (figs. 114 and 115), and fish with dip-nets. When the weather ³⁴³ is cold, or when fish is to be fried, fire is made on the platforms, which ²²⁶ are isolated from the fire by means of a layer of river mud.⁵ These

¹ Nordenskiöld (11), pp. 60.

² Nordenskiöld (13), fig. 8, 11 B, plate 14, and Karsten (3), the figure on p. 34.

³ Letter dated 14. 7. 1931, Kuchelstad collection of manuscripts, volume 1931, letter N.

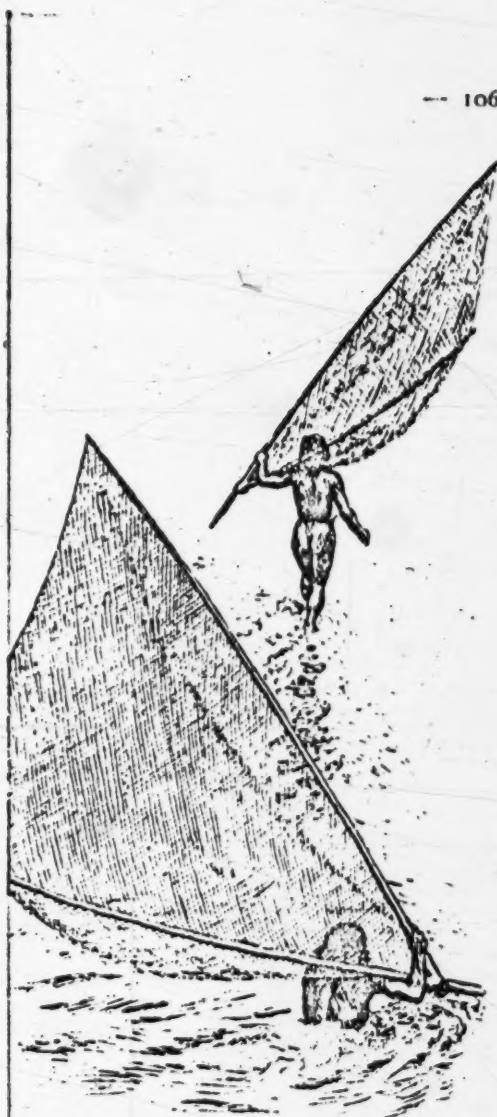
⁴ Nordenskiöld (13), p. 43.

⁵ Nordenskiöld (13), p. 44.

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little water platforms are constructed in about the same way as the food-storing platforms, or cooking sheds, that the Choroti build on dry ground (see p. 38). The only difference is that the two horizontally placed sticks that support the platform (the roof) in the latter, are resting in natural forks formed by the top ends of the uprights (see fig. 28), whilst the two sticks that support the platforms (the floor) of the river structures rest against bindings which have been tied round two uprights driven in close together. This arrangement almost certainly aims at the possibility of raising or lowering the platform in accordance with the level of the river water. In all other respects there is very great resemblance between the platforms that are built in rivers (fig. 115) and the cooking sheds built on dry land (fig. 28). In chapter VII I have tried to show how pile structures on firm ground have inspired the idea of building similar structures in water (see pp. 192—199 and 38—47).

The Choroti are so much at home in the water that they are able, whilst swimming below the surface, to catch fish with their dip-nets.

Fig. 113. Ashluslay fishermen with baring nets. Pileomayo, Gran Chaco, Bolivia. Sketched from a photograph by Erl. Nordenskiöld.

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Fig. 114. Pole-built fish fence across the Pijcomayo, with openings at intervals. On a platform in front of one of the openings a Choroti Indian is sitting, fishing with a dip-net. Gran Chaco, Bolivia. Sketched from a photograph by Erl. Nordenskiöld.

In figs. 116 and 117 is shown a bar net of caraguatá yarn. When ²²⁷ I, by barter, acquired this net, for the reasons already given it was not mounted on its frame, but was kept rolled up, and with its mouth drawn together (see figure), in order to take up as little room as possible. The size of the net shows that it could be extended, in a triangular shape, between the arms — about 3 m long — of a fork (see fig. 113). The yarn of which the net is made is two-ply, and has a diameter of about 1.5 mm. The meshes are square, with sides of 4 cm.

In my collection there are also nets with meshes whose sides are, respectively, 2.6 and 1.6 cm. But the Choroti have probably nets with still smaller meshes, for I have in my collection a mesh-spacer which is only 1.1 cm wide.¹ Nets that are as small-meshed as this, are suitable for catching bait for fishing with hook and line.



Fig. 115. Detail sketch of a platform of the kind seen in fig. 114. From Erl. Nordenskiöld.

The largest mesh-spacer in my collection is very nearly 4 cm wide (fig. 118), and would therefore have been used for the weaving of nets

¹ Kåsm. 03. 3. 241.

227 of the kind reproduced in figs. 116 and 117. The mesh-spacers are made of some hard, heavy wood, and usually very smoothly polished.

- 226 As I have said before, the Choroti also fish with hook and line, although this method of fishing is not by far as common as fishing with nets. In fig. 119 I have reproduced a fish-hook and line. The fish-hook has been made by the Choroti themselves from some awl-like tool acquired in

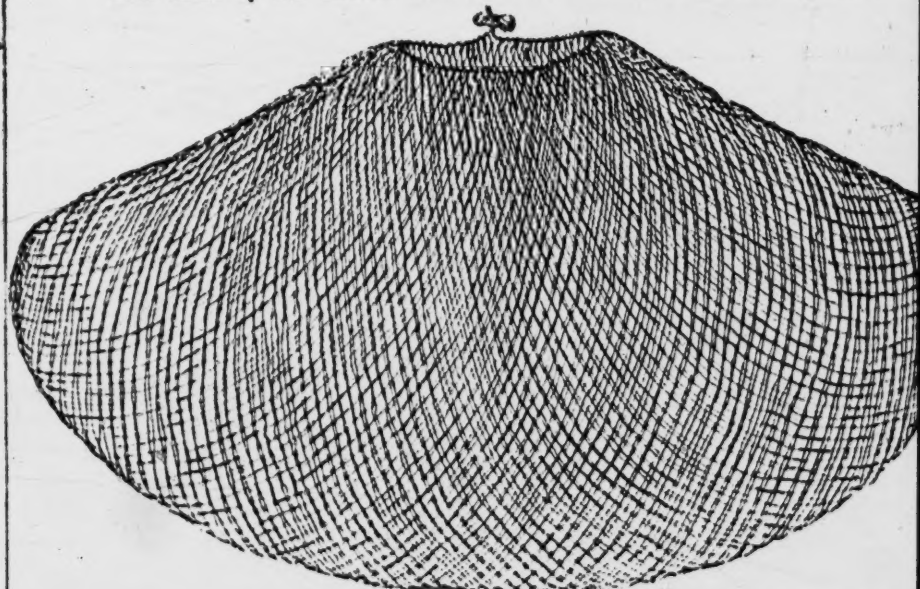


Fig. 116. Net made of caraguata fibre yarn, for extending in a triangular shape in the way seen in fig. 112. It is here shown with its mouth drawn together, by means of a string running along its edge, so as to be more easily rolled up for transport. The meshes are quadratic, with sides 4 cm long (see fig. 117). The yarn, which is two-ply, has a diameter of about 1.5 mm. Choroti. Gran Chaco. Bolivia. ¹/₁₂. Riksm., 63. 3. 237.

some way or other from the whites. Formerly the Choroti probably used fish-hooks of bone or hard wood. Such hooks are still being used by the Lengua.¹ The line, which consists of caraguata, is not threaded through any eye, or tied to any notches in the top of the shank of the hook, but is laid straight along the upper part of the hook, and fastened by winding on it a thinner caraguata string. At the lower part of the hook, a caraguata

¹ Grubb (1), p. 81.

thread is wound on and fastened. Probably this thread,¹ was used for 226
securing the bait so that it should not slip off the barbless hook. The
line, which consists of three-ply yarn, is 4.4 m. long.

When a fish has been caught, it is killed with small, round-sectioned
clubs of some hard and heavy kind of wood (fig. 120), and then strung
on a cord, which, by means of a wooden needle (fig. 121), is threaded
through the head of the fish, being passed through its eyes. The fish-
festooned cord is carried round the fisherman's waist. This is a safe and
handy way of carrying the catch whilst continuing fishing operations,
swimming or wading. When a collected catch of fish is to be transported



Fig. 117. Enlargement of the net in fig. 116. $\frac{2}{3}$.

home to the village, the fish needle and cord also come in very useful.
The implement here shown is from the Toba, as the Choroti specimen
which I brought home (Riksm. O. 3. 243) is now lost. The needle in the
implement here reproduced probably consists of palo mataco, or que- 284
bracho, and has a length of 380 cm and a diameter of 0.3 cm. The
cord, however, tapers towards the ends, its extreme points being only a 283
few millimetres in thickness. One end of the cord is bent back so as to
form a loop. Through this loop, and through the eye of the needle, a
thinner caraguatá string has been passed, several turns, and with this
string the loop has been wound, in the way seen in the picture. The
specimen here shown is meant for carrying large-sized fish, but these
implements are also to be found of much slenderer dimensions.

¹ I have no notes concerning the purpose of this thread.

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Toba and the Tapiete, as well as among the tribes mentioned above. MAX SCHMIDT¹⁾ mentions these clubs from the Guató. Formerly they were also used by the Mbayá²⁾. I have put the club among the cultural elements characteristic of the Chaco. The *wooden needle with the line* for pulling up fish is also specially characteristic of the Chaco. Apart from the tribes here dealt with, I have seen such needles among the Toba, Mataco and Chiriguano. HAWTREY also mentions them from the Lengua³⁾. I have not seen them mentioned in books about any tribe outside the Chaco.

The *baskets* mentioned above are also found, besides among the Ashluslay, among the Lengua⁴⁾ and the Cayubabá⁵⁾. I have seen them myself among the last-named tribe.

I have myself seen *fishing with the bow and arrow* and know it to be practised among the following tribes: Atsahuaca, Chacobo, Cháma, Chimáne, Chiriguano, Churápa, Guarayú (in the Mission), Guarayú (Pauserna) Huanyam, Huari, Mosetene, Tambopata-Guarayo, Yamiaca and Yuracaré.

This sort of fishing is widely extended in S. America.

The Choroti and Ashluslay have no multi-pointed fishing arrows, and no harpoon arrows.

There is a curious *river damming contrivance* in use among the Choroti, Ashluslay and Mataco during the dry season, which I have not seen elsewhere, and which I have not found mentioned in the books I have consulted. I have described it in «Indianerleben»⁶⁾ so that it seems unnecessary to repeat it here.

¹⁾ p. 211.

²⁾ SÁNCHEZ LABRADOR, Vol. I, p. 223.

³⁾ p. 287.

⁴⁾ GRUBB, p. 81 and fig. p. 241.

⁵⁾ KELLER-LROZINGER, p. 72; see also NORDENSKIÖLD (a) fig. 39.

⁶⁾ p. 48.

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seldom allows them to reach maturity. Besides the drought, birds, ants, locusts, and rats often destroy the crops. The same fruits and cereals are cultivated by the Mataco and the Tobas in Bolivia, maize and manioc however with greater success than among the Choroti, since the climate there is more favourable. On the whole, the Chaco tribes are greatly dependent for their subsistence on the crops nature spontaneously gives them, and the great rôle that wild fruits like the algaroba, the chañar, the tusca, and a few others play in the economic life of these Indians has already been mentioned. It is mainly owing to these useful trees that the interior parts of the Chaco are habitable for people living in a state of nature.

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The Bolivian Tobas, although they cultivate maize on a small scale, still get their main supply of this important cereal from the Avas in the north, with whom they carry on a sort of trade. Generally they get the maize in exchange for dried fish, which they store in considerable quantities during the summer season.

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Fishing is the main occupation of the tribes living on the River Pilcomayo, and these Indians are therefore never seriously threatened by starvation. During the rainy season, when the river is swollen, fishing is often impossible; the proper season begins in April or May when the water is low and fish appear in abundance along the banks of the river. All Pilcomayo tribes use nets made of *caraguatá* fibres and of a peculiar triangular form, and since they have no canoes or vessels of any kind they always catch the fish by swimming and diving, in which they display remarkable skill. The Tobas, who are particularly skilled fishermen, use not only nets, but also, and I believe more commonly, bow and arrows, a method only occasionally practised by the Choroti and the Mataco. When the Indians have caught a fish they instantly kill it with a small club of palo santo if it is a large one, if it is of a smaller kind simply by biting the head.

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During a big fishing expedition the Indians, at any rate the Tobas, sometimes catch fish in enormous quantities. They preserve them by roasting, then store them in special shelters, formed of a roof made of reeds and palm-leaves resting on four poles. This dried fish forms an important article of exchange among the Tobas.

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Next to fishing, hunting is the most important means of subsistence of the Chaco Indians, but in this respect also the Choroti and Mataco are inferior to the Tobas. Especially the Choroti seemed to me to be poor hunters. In the parts of the Chaco inhabited by these Indians game is scarce, and with their comparatively small bows and arrows they only

2: Karsten E-5 (1911-1913) 1932 SI7 Mataco

Toba SI 12

Choroti SK 6

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Indian Tribes of the Argentine and Bolivian Chaco.

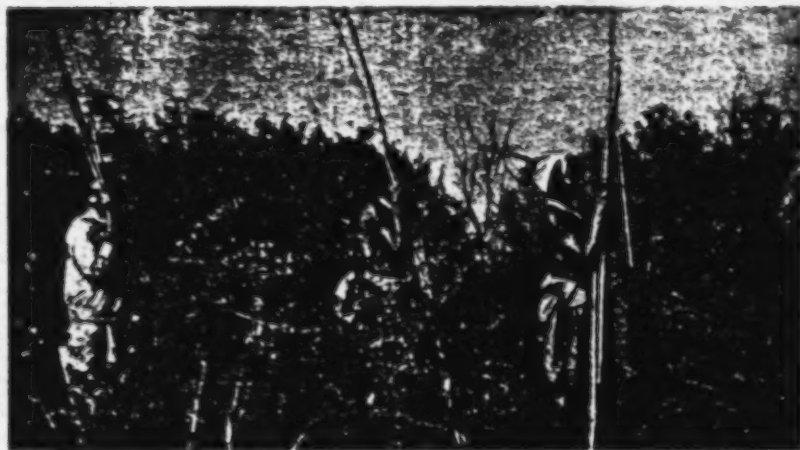
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Choroti Indians fishing in the Pilcomayo.

An old man, wading in the river and beating the water with a stick, is driving the fish towards the fishermen, who stand ready to catch them with their nets.



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Photo W. Harnson.

Young Toba Indians, armed with bows and arrows, hurting in the forest.

Indian tribe. For myself I have regarded them mainly from the point of view of the ethnologist and social psychologist, and cannot help holding a somewhat different opinion on the subject. The state of things which Mr. Grubb found among the Lenguas, it should be noted, is in the main the same as among all Chaco tribes. Mr. Grubb disregards the fact that what he calls Indian socialism, with the solidarity and social sympathy which it involves, is not accidental but the natural outcome of evolution and the circumstances under which the Chaco Indians have lived for centuries. It is not only a natural system but also a useful system, having been developed according to the Darwinian law that in a hard struggle for existence such societies have the best chance to survive in which the sympathetic feelings are strongest. In fact, nowhere is mutual aid more necessary than among the half-nomadic Chaco tribes, who are able to practise agriculture only to a small extent and who, as pointed out before, at certain times of the year have to struggle hard to support life. Lacking these social feelings, I believe, many of the smaller tribes, for instance the Choroti, would have perished long ago. Besides, the very history of the Chaco Indians proves that they have been driven into these inhospitable regions by forces over which they had no control, the most important being the pressure of superior peoples. Pressed from behind and meeting resistance from those already occupying these lands they were compelled to fight for their very existence. These facts of the historic past of the Chaco Indians account for the warlike character of many of them, but also for their strong social instincts.

Social sympathy is developed strongest among low tribes such as the Choroti and Ashluslay, but also manifests itself among the Tobas and the Mataco. What Mr. Grubb says with special reference to the Lenguas, that «the apparent hospitality is given grudgingly, though ostensibly with a good grace», does not at any rate hold true of the Choroti. I have mentioned before that bargaining in every form is unknown to the Choroti, and this is due simply to the fact that they regard themselves as being socially so intimately united that property and the products of labour are practically common to all. When a party of Choroti men return from fishing they always distribute the catch in the village so that every family has its share, and if one asks a Choroti why he does so, his only answer is generally: *elsini*, i.e. «they are my brothers». «We are all brothers», is the principal tenet of their social morality. There is an unwritten native law which states that no single family or individual shall suffer want as long as there are others who possess food. This system is looked

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